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(71) Applicant (for all designated States except US): **SIGE  
SEMICONDUCTOR INC.** [CA/CA]; 2680 Queensview  
Drive, Ottawa, Ontario K2B 8J9 (CA).

(72) Inventors; and

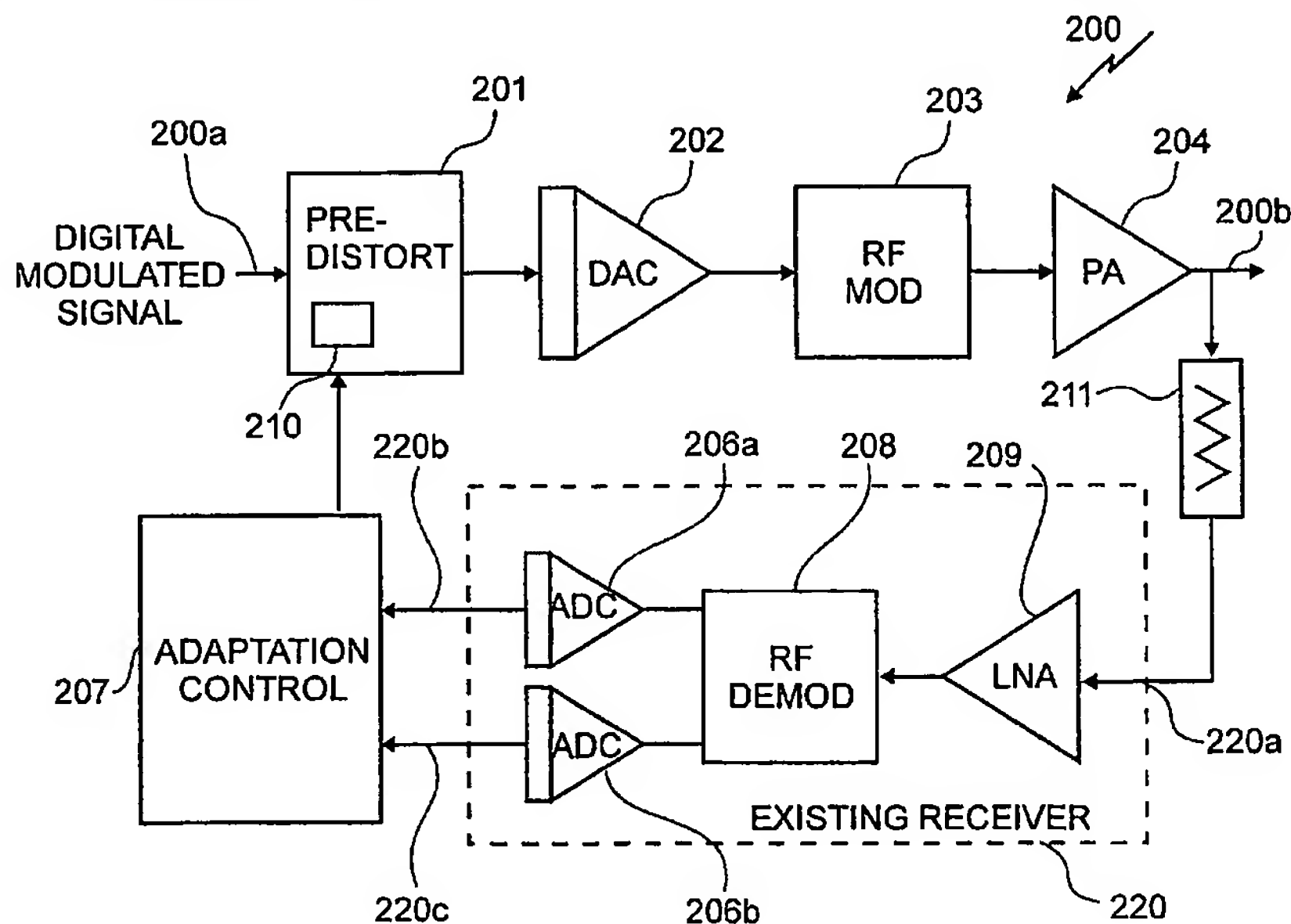
(75) Inventors/Applicants (for US only): **JESSON, Mar-  
tin, Gordon** [GB/GB]; 15 Borley Way, Teversham,  
Cambridgeshire CB1 5BA (GB). **BATH, Gareth, John**  
[GB/GB]; 39 Woodlands Park Drive, Great Dunmow,  
Essex CM6 1WH (GB). **MACPHAIL, Philip, John**  
[GB/GB]; 14 Comfrey Court, Cherry Hinton, Cambridge  
CB1 9YJ (GB).

(74) Agent: **FREEDMAN, Gordon**; Freedman & Associates,  
117 Centrepointhe Drive, Suite 350, Nepean, Ontario K2G  
5X3 (CA).

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(54) Title: METHODS OF ENHANCING POWER AMPLIFIER LINEARITY



(57) Abstract: A novel method of enhancing power amplifier linearity is disclosed. The invention is for use within a transceiver system and provides a method in the digital domain for predistorting a digital modulated signal to compensate for the non-linearity properties of the power amplifier and other components within the transmitter system. The RF output signal of the transmitter circuit is sampled and the corresponding amplitude and phase are detected using a receiver circuit. In dependence upon the amplitude and phase information, a look-up table is indexed to select the predistortion data and predistortion of the digital modulated signal occurs within the predistortion circuit.



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**Declarations under Rule 4.17:**

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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